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FIG. 1A

FIG. 1A-2

FIG. 1A-1

120	240	360	480	009	320	840	096
cogcATGGAA N E	GGAGARCARC	GCCAGCCCTA A A L	CTGCAGAAGT	C N S GRAGCCCTTC	K P F CARCTIGACA	N L T CGTGRCCRTG	U T M TTCCTACAAG
c gctccgagt	ATCACATGAG	CCCTGTCCA 0 0	RICAGGAR	TCCCCGACGG	P 0 G TARRCRCRGT	H T U ICCCTRIRIT	P I F ACTCTGCCAT
t gogggcggg	CAGTATCCGG	TGGGRAGGAG	ARTRICGICT	R I U Y CACCTCAGGT	H L R F CGRGTTTCTR	R U S I ACAGATCAGA	T 0 0 I TTCCTCRACT
cctgactggc	SECCRIGAGE S	GRAGGACTCC	TGCCAACGC	CCARGGCCAG	O G O GTGTTCRGCR	C S A GTRTGTGRTR	Y V I TCCCRGTCRT
agagt caage	GTGRTGTGCT	NGGCRGATG	ясянссянся	R E U	N 1 S N 1000 S 1 N 1000 S 1 N 1000 S	L G Q	K D U
ctagggagte	AAGCGGTTCC (ACCACCCCAC I	CCCAGATGCC	r k C ų Gactgggarg i	O U E O TRITTICARA I	Y F Q K ATCTCCARAG	I S K U
gtatttcata oaacagagag gatcgcagga ggccggcact ctgactcctg gtggatggga ctagggagtc agagtcaagc cctgactggc tgagggggggggg	RETETETEC GEGICCICCI ATTICICCIO CIGECICCRO GRCTGCCCCI CCRGGCGCCC RRGCGGTICC GIGRIGICCI GGGCCRIGRG CRGTRICGG RICACRIGRG GGRGRRCARC	STEED WELL OF LETE TO AN TO THE WORLD TO THE TOTAL STATES OF THE WORLD TO THE WORLD	ACCRISTATI CACCISCUTI GOIGGOTTCC RATATCACCI TCGTAGTGAA CCTGGTGTTC CCCRGRIGCC AGARGGARGA TGCCCARGGGC AATATCGTCT ATGAGGGGAA CTGCRGAAGT	I S U S P H L O U S H I I P U U H L U P P H L U K L U H H U H I U P P E U B H I U P P E H N U H S CANTIGORGE T GAITIGGRGE TGGETIETGA CCGGTAIGTE TACAACTGGA CCACAGGGG AGACGAGAG GACTGGGAAG ACAACACCAG CCAAGGCCAG CACCTCAGGT TCCCCGACGG GAAGCCCTTC	D L E L A S D P Y U Y H W I I G A D D E D W E D N I S Q G Q H L R F P D G K P F CCICCCCCC ACGGACGGAA GARAIGGAAC VICGICIACG ICIVICCACAC ACVIGGICAG VATIVICARA ACCIGGGICA GIGIVICAGCA CGAGIVICIA VARACACAGI CAACVIGACA	PRPRPRC RECORD RESIDENTIES TITCEARGE ACCECCECE RIACATICC ATCICCARGE SARGES AND SINTIUNINE TO CONTROCCET ACCETATATI COTGACCATG	U G P Q U N E U I U F A A H G A A Y I P I S K U K D U Y U I T D Q I P I F U T N Taccagara a tarcegera cicotetati garacetice tergradacet eccentitie ticorice centeres
ctgactcctg	GACTGCCGCT	ARCACCIGIA	TCGTAGTGAR	0 0 K	T G R TCTTCCRCRC	F H T ACGGCCGGGC	G R R TCRGRGRCCT
ggccggcact	CTGGCTGCRG	CANTINCOTO CCTGGTCTTC ACATGAAAT GAATGCGATG A	RATATCACCI	ISUS PHLOUS HILLOCOS CONTINUES CONTINUES OF THE PROPERTIONS OF THE PROPERTIES OF THE PROPERTY	D L E L A S D P Y U Y N M I L	PRPHGRKKUNFUV U	U G P Q U N E U I U F R R H TACCAGARGA ATGACCGGAR CTCGTCTGAT GARACCTTCC
gotegeogga	RITICIGCIG	RCRICARARI O F N	2011000100	CCCGTRIGIC	P Y U Garatggarc	K U N RGTGRTTGTC	U I U CTCGTCTGRT
606060000 0	1001001000	0 1 0 0010010100 0 2 3 U	CACCGCCTT	P K L 166011016A	A S D Accorcora	G R K RGGTCR1GGR	U N E Atgreccora
glatticata	RGTCTCTGCG	CRATTACGIC	ACCAGTGATT	6ATTTGGAGC	0 L E L	P R P H GTTGGCCCTC	U G P Q TACCAGARGA

я 1080	0 1500	0261 3	0++1	0951)	A 1680	1800 I	1920	t 2040	0 2160	0 2280	2320
TGGRACTITG GGGRCRACRC TGGCCTGTTT GTCCCCRACR ATCRCRCTTT GRATCRCRC TATGTGCTCR ATGGRACCTT CRRCTTTRAC CTCRCCGTGC RARCTGCRGT GCCGGGRCCR	TOCCCCICAC CCACACCIIC CCCTICIICI ICGACTICIC CTICGCCIGC ATCTICGCCT ICACCCACAT TATCAACACC TAGICCCICT TTAATGCCTA CTGGCTACAA ATCCATGGAG	CTGAGTGACA TITCCAATGA AAACTGCCGA ATAAAACAGAT ATGGTTACTT CAGAGCCACC ATCACAATTG TAGATGGAAT CCTAGAAGTC AACATCATCC AGGTAGCAGA TGTCCCAATC	CCCACACTOC AGCCTGACAA CICACTGATG GACTICATIG IGACCTGCAA AGGGGCCACT CCCACGGAAG CCTGTACGAT CATCTCTGAC CCCACCTGCC AGATCGCCCA GAACAGGGTG	TOCROCCCO TGCCTOTOGR TORGCTOTOC CTCCTOTCC TORGCROCC CTTCRRTGGG TCCGGCRCGT ACTGTGTGRA TITCRCTCTG GGRGRGGRIG CRRGCCTGGC CCTCRCCRGC	GCCCTGATCT CTATCCCTG CARAGACCTA GCTCCCCTC TGAGAACAGT GAATGGTGT CTGATCTCCA TTGGCTGCCT GCCCATGTT GTCACCATGG TTACCATCTT GCTGTACAAA	RARCRERROR CGIRCARGE RRIRGGRARE IGCRECROGA ACGIGGICAR GGGCRARGEC CIGAGIGIII IICICAGECA IGCRARAGEC CCOIICICC GAGGRGRCE GGAGRAGGRI	K H K I Y K P I 6 H C I K H U U K 6 K 6 L S U P L S H H K H P F S H G D H E K U <u>CCACTOCTOC AGGACARG</u> CC ATGGATGCTC TRAgictica cicicactic igacigggaa cccacictic igigcaigta tgigagcigi gcogaagtac algaciggia gcigitgiti	gtagttaat tggcattita gtgaagggat gggaagacog tatticitcg catciglati gtggtillta tactgttaat	oggiggica cattgigict googgggggg ggggaggica ctgctactta oggtcctogg ttaactggga gaggatgccc coggctcctt ogattictac ocoogolgig cctgaaccca	gologicolg occiopaggo coigolicol coociciale teageteali gaacataeet gagegeetiga iggaatiata alggaaceaa getigilgia iggigigigi gigiacataa	
RIGIGCICA RIGGARCC	CACCCACAT TATCARCA	TCACARTIG TAGATGGA	CCACGGARG CCIGIRCG	CCGCCACGT ACTGTGTG	TGATCTCCA TTGGCTGC	TGRGTGTTT TTCTCRGC	SUFLS concerte tytypoly	(გიიმსმი(გმგიიმად	toactggga gaggatgc	agcgcctga tggaatta	
TT GARTCACACG TF	CC ATCTTCCCT TC	TT CAGAGCCACC AT	THE REGERECT CO	NGC CTTCARTGGG TO	IGT GARTGGTGTC CI	าร อออริสมอออ	k b k b L .tc tgactgggaa co	oot tggcotttta gt	ta agglectagg ti	olt goocotocct go	
CICCARCA AICACACI	GACTICIC CTTCGCCI	HARCAGAT ATGGTTAC	NCTICATTG TGACCTGC	CCTGTCCG TGAGGAGA	CICCCIC TGAGAACA	SCRCCRGGR RCGTGGTC	I K K U U Agtettea eteteaet	llogggog tglogtlo	ggoggico cigcioci	octetale teagetea	00000000
1668ACTITG 666ACAACAC 166CCTGTTT 6TCTCCAACA	REACCTIC CCCTICTICT TC	CTGRGTGACA TTTCCARTGA AAACTGCCGA ATAAACAGAT	CCCACACTGC AGCCTGACAA CTCACTGATG GACTTCATTG	TOCRGCCCCG TGCCTGTGGR TGRGCTGTGC CTCCTGTCCC	GCCCTGATCT CTATCCCTG CARAGACCTA GCCTCCCTC	TRCARCCC ARTROCARAC TO	K H K I Y K P I 6 H C I H N <u>CCACTGCTCC AGGACAAG</u> CC ATGGATGCTC TAAgtcttco	P L L () O K P W 11 L tctocggatt attgtoooot gtatolcatg gttlogggog t	ittglgtet googgggggg gg	ctapagge cotgetteol co	gotactcatt accagocag tetottosoo occoocoo
TGGRACTITG GG	בר היה היה היה היה היה היה היה היה היה הי	CTGRGTGRCR TT	CCCACACTGC AG	TCCRCCCCG TO	CCCCTGATCT C1	RARCACARGA CC	CCACTCCTCC AC	P L L Q tctacggatt at	აა დამნმენმნდ	gctoglectg oc	gotactcatt ac

IG. 1A-2

3/18 poly A signal is position 111614-111619 translation start (ATG) is: Gene: 83385 cDNA: 92 FIG. 1B 162 152 144 176 176 157 318 99 103 209 94 042 cDNA Start cDNA Stop Exon Length 162 314 458 634 791 1109 1208 1311 1520 1614 2656 163 315 459 635 792 1110 1209 1312 1521 1615 83455 89986 90839 93594 96665 97300 103142 104515 1101411 BAC Stop 83294 89834 90696 93419 96509 96983 103044 104413 1106494 **BAC Start** EXON 459661

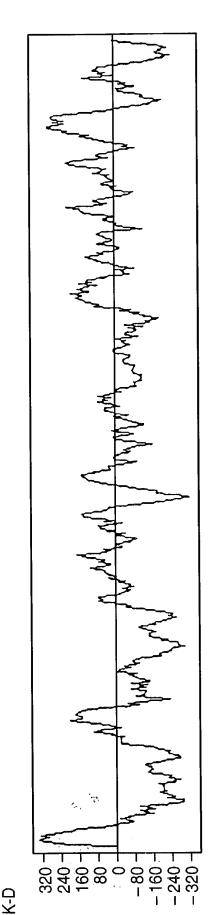


FIG. 1C

FIG. 2A-1

FIG. 2A-2

FIG. 2A-3

FIG. 2A-4

FIG. 2A-5

FIG. 2A

AT	GGAAAGTC	TCTGCGGGT	CCTGGTATTT	CTGCTGCTGG	CTGCAGGACT	GCCGCTCCAG	ATGGAAAGTC TCTGCGGGGT CCTGGTATTT CTGCTGCTGG CTGCAGGACT GCCGCTCCAG GCGGCCAAGC GGTTC	75
atggaaagtc atggaaagtc		TCTGCGGGGT TCTACTATTT	ATGGAAAGTC TCTGCGGGGT CCTGGGATTT ATGGAAAGTC TCTACTATTT CCTGGGATTT	CTGCTCCTGG	CTGCAGGACT	GCCACTTGAT	ATGGAAAGTC TCTGCGGGGT CCTGGGGATTT CTGCTGCTGG CTGCAGGACT GCCTCTCCAG GCTGCCAAGC GATTI ATGGAAAGTC TCTACTATTT CCTGGGATTT CTGCTCCTGG CTGCAAGATT GCCACTTGAT GCCCCCAAAC GATTT	75
CGTGATGTG		TGGGCCATGA	GCAGTATCCG	GATCACATGA	GGGAGAACAA	CCAATTACGT	rat CGTGATGTGC TGGGCCATGA GCAGTATCCG GATCACATGA GGGAGAACAA CCAATTACGT GGCTGGTCTT CAGAT	150
CCTCATCTG) ()	TGGGCAATGA	AAGACCTTCT	GCTTACATGA	GGGAGCACAA	TCAATTAAAT	CATGATGTGC TGGGCAATGA AAGACCTTCT GCTTACATGA GGGAGCACAA TCAATTAAAT GGCTGGTCTT CTGAT	150
GAAAATGAA	⊱	GGGATGAACA	GCTGTATCCA	GTGTGGAGGA	GGGGAGAGGG	CAGATGGAAG	GAAAATGAAT GGGATGAACA GCTGTATCCA GTGTGGAGGA GGGGAGGGG CAGATGGAAG GACTCCTGGG AAGGA	225
GAAAATGAAT	_	GGGATGAACA	CCTGTATCCA	GTGTGGAGGA	GGGGAGACGG	CAGGTGGAAG	mouse GAAAATGAAT GGGATGAACA CCTGTATCCA GTGTGGAGGA GGGGAGACGG CAGGTGGAAG GACTCCTGGG AAGGA	225
GAAAATGACT		GGAATGAAAA	ACTCTACCCA	GTGTGGAAGC	GGGGAGACAT	GAGGTGGAAA	GAAAATGACT GGAATGAAAA ACTCTACCCA GTGTGGAAGC GGGGAGACAT GAGGTGGAAA AACTCCTGGA AGGGA	522
GGCGTGTG	\circ	GGCCGTGTGC AGGCAGCCCT AA	AACCAGTGAT	TCACCGGCCT	TGGTGGGTTC	CAATATCACC	CCAGTGAT TCACCGGCCT TGGTGGGTTC CAATATCACC TTCGTAGTGA ACCTG	300
GCCCTGTG	Ç	AGGCAGTCCT	GACCAGTGAC	TCACCGGCTC	TGGTGGGTTC	CAATATCACT	GGCCGTGTGC AGGCAGTCCT GACCAGTGAC TCACCGGCTC TGGTGGGTTC CAATATCACT TTTGTGGTGA ACCTG	300
GGCCGTGTG	()	AGGCGGTCCT	GACCAGTGAC	TCACCAGCCC	TCGTGGGCTC	AAATATAACA	human GGCCGTGTGC AGGCGGTCCT GACCAGTGAC TCACCAGCCC TCGTGGGCTC AAATATAACA TTTGCGGTGA ACCTG	300

rat	GTGTTCCCCA	GTGTTCCCCA GATGCCAGAA GGAAGATGCC	GGAAGATGCC	AACGGCAATA	GTGTTCCCCA GATGCCAGAA GGAAGATGCC AACGGCAATA TCGTCTATGA GAGGAACTGC AGAAGTGATT	gaggaactgc	AGAAGTGATT TGGAG	375
mouse	GTGTTCCCCA	GTGTTCCCCA GATGCCAGAA GGAAGATGCT	GGAAGATGCT	AATGGCAATA	GTGTTCCCCA GATGCCAGAA GGAAGATGCT AATGGCAATA TCGTCTATGA GAAGAACTGC AGGAATGATT	gaagaactgc	AGGAATGATT TGGGA	375
human	ATATTCCCTA	ATATTCCCTA GATGCCAAAA GGAAGATGCC	GGAAGATGCC	AATGGCAACA	ATATTCCCTA GATGCCAAAA GGAAGATGCC AATGGCAACA TAGTCTATGA GAAGAACTGC AGAAATGAGG	gaagaactgc	AGAAATGAGG CTGGT	375
rat		CTGGCTTCTG ACCCGTATGT	CTACAACTGG	ACCACAGGGG	CAGACGATGA	GGACTGGGAA	CTGGCTTCTG ACCCGTATGT CTACAACTGG ACCACAGGGG CAGACGATGA GGACTGGGAA GACAACACCA GCCAA	450
mouse		CTGACATCTG ACCTGCATGT	CTACAACTGG	ACTGCAGGGG	CAGATGATGG	TGACTGGGAA	CTGACATCTG ACCTGCATGT CTACAACTGG ACTGCAGGGG CAGATGATGG TGACTGGGAA GATGGCACCA GCCGA	450
human		TTATCTGCTG ATCCATATGT	TTACAACTGG	ACAGCATGGT	CAGAGGACAG	TGACGGGGAA	TTATCTGCTG ATCCATATGT TTACAACTGG ACAGCATGGT CAGAGGACAG TGACGGGGAA AATGGCACCG GCCAA	450
rat mouse human		GGCCAGCACC TCAGGTTCCC CG AGCCAGCATC TCAGGTTCCC GG AGCCATCATA ACGTCTTCCC TG	GGCCAGCACC TCAGGTTCCC CGACGGGAAG AGCCAGCATC TCAGGTTCCC GGACAGGAGG AGCCATCATA ACGTCTTCCC TGATGGGAAA	CCCTTCCCTC CCCTTCCCTC CCTTTTCCTC	GCCCAGCACC TCAGGTTCCC CGACGGGAAG CCCTTCCCTC GCCCCCACGG ACGGAAGAAA TGGAACTTCG AGCCAGCATC TCAGGTTCCC GGACAGGAGG CCCTTCCCTC GCCCCCATGG ATGGAAGAAA TGGAGCTTTG AGCCATCATA ACGTCTTCCC TGATGGGAAA CCTTTTCCTC ACCACCCGG ATGGAGAAGA TGGAATTTCA	ACGGAAGAAA ATGGAAGAAA ATGGAGAAGA	ACGGGAAG CCCTTCCCTC GCCCCCACGG ACGGAAGAAA TGGAACTTCG TCTAC ACAGGAGG CCCTTCCCTC GCCCCCATGG ATGGAAGAAA TGGAGCTTTG TCTAC ATGGGAAA CCTTTCCTC ACCACCCGG ATGGAGAAGA TGGAATTTCA TCTAC	525 525 525 525
rat	GTCTTCCACA	GTCTTCCACA CACTTGGTCA GT	rat GTCTTCCACA CACTTGGTCA GTATTTTCAA	AAGCTGGGTC	GICTICCACA CACTIGGICA GIAITITICAA AAGCIGGGIC AGIGITICAGC ACGAGITICI	ACGAGTTTCT	ATTITCAA AAGCTGGGTC AGTGTTCAGC ACGAGTTTCT ATAAACACAG TCAAC	009
mouse	GTCTTTCACA	GTCTTTCACA CACTTGGCCA GT	mouse GTCTTTCACA CACTTGGCCA GTATTTCCAA	AAACTGGGTC	GICTITCACA CACTIGGCCA GIAITITCCAA AAACIGGGIC GGIGITICAGC ACGGGITICI	ACGGGTTTCT	ATTICCAA AAACTGGGTC GGTGTTCAGC ACGGGTTTCT ATAAACACAG TCAAC	
human	GTCTTCCACA	GTCTTCCACA CACTTGGTCA GT	human GTCTTCCACA CACTTGGTCA GTATTTCCAG	AAATTGGGAC	GICTICCACA CACTIGGICA GIAITITCCAG AAATIGGGAC GAIGITCAGI GAGAGITICI	GAGAGTTTCT	ATTICCAG AAATTGGGAC GATGTTCAGT GAGAGTTTCT GTGAACACAG CCAAT	
rat mouse human		TTGACAGTTG GCCCTCAGGT CATTGACAGCTG GCCCTCAGGT CATGAGACTTG GCCCTCAACT CATGACTTG GCCTCAACT CATGAGCT CATG	TTGACAGTTG GCCCTCAGGT CATGGAAGTG TTGACAGCTG GCCCTCAGGT CATGGAAGTG GTGACACTTG GGCCTCAACT CATGGAAGTG		ATTGTCTTTC GAAGACACGG CCGGGCATAC ATTCCCATCT ACTGTCTTTC GAAGATACGG CCGGGCATAC ATTCCCATCT ACTGTCTACA GAAGACATGG ACGGGCATAT GTTCCCATCG	CCGGGCATAC CCGGGCATAC ACGGGCATAT	ATTCCCATCT CCAAA ATTCCCATCT CGAAG GTTCCCATCG CACAA	675 675 675
) <u>H</u>	FIG. 2A-2			6/

750 750 750	825 825 825	006 006	966 966 975	1029 1032 1004
GTGAAAGACG TGTATGTGAT AACAGATCAG ATCCCTATAT TCGTGACCAT GTACCAGAAG AATGACCGGA ACTCG	TCTGATGAAA CCTTCCTCAG AGACCTCCCC ATTTTCTTCG ATGTCCTCAT TCACGATCCC AGTCATTTCC TCAAC	TACTCTGCCA TTTCCTACAA GTGGAACTTT GGGGACAACA CTGGCCTGTT TGTCTCCAAC AATCACACTT TGAAT	CACACGTATG TGCTCAATGG AACCTTCAAC TTTAACCTCA CCGTGCAAAC TGCAGTGCCG GGACCA	-rgcc-cc-t cacccacac trggccttct tetrogactt ctcettcgcctgca tetrogectt cargcc-ctccccc trggccttcg actcggcctt caccttcaac teggccctta cetrogecet cacct -cgccaccac cacccagac trc
GTGAAAGATG TGTATGTGAT AACAGATCAG ATCCCTGTAT TCGTGACCAT GTCCCAGAAG AATGACAGGA ACTTG	TCTGATGAGA TCTTCCTCAG AGACCTCCCC ATCGTCTTCG ATGTCCTCAT TCATGATCCC AGCCACTTCC TCAAC	GACTCTGCCA TTTCCTACAA GTGGAACTTT GGGGACAACA CTGGCCTGTT TGTCTCCAAC AATCACACTT TGAAT	CACACTTATG TGCTCAATGG AACCTTCAAC CTTAACCTCA CCGTGCAAAC TGCAGTGCCC GGGCCA	
GTGAAAGATG TGTACGTGGT AACAGATCAG ATTCCTGTGT TTGTGACTAT GTTCCAGAAG AACGATCGAA ATTCA	TCCGACGAAA CCTTCCTCAA AGATCTCCCC ATTATGTTTG ATGTCCTGAT TCATGATCCT AGCCACTTCC TCAAT	TATTCTACCA TTAACTACAA GTGGAGCTTC GGGGATAATA CTGGCCTGTT TGTTTCCACC AATCATACTG TGAAT	CACACGTATG TGCTCAATGG AACCTTCAGC CTTAACCTCA CTGTGAAAGC TGCAGCACCA GGACCTTGTC CGCCA	
rat	rat	rat	rat	rat
mouse	mouse	mouse	mouse	mouse
human	human	human	human	human

-IG. 2A-3

1101	1176	1251	1326	1401
1107	1182	1257	1332	1407
1059	1134	1209	1284	1359
TTAATGCCTA CTGGCTACAA ATCCATGGAG CTGAGTGACA TTTCC	AATGAAAACT GCCGAATAAA CAGATAAGGT TACTTCAGAG CCACCATCAC AATTGTAGAT GGAATCCTAG AAGTC	AACATCATCC AGGTAGCAGA TGTCCCAATC CCCACACTGC AGCCTGACAA CTCACTGATG GACTTCATTG TGACC	TGCAAAGGGG CCACTCCCAC GGAAGCCTGT ACGATCATCT CTGACCCCAC CTGCCAGATC GCCCAGAACA GGGTG	TGCAGCCCGG TGGCTGTGGA TGAGCTGTGC CTCCTGTCCG TGAGGAGGC CTTCAATGGG TCCGGCACGT ACTGT
TTAATGCCTA CTGGTTACAA ATCCATGGAG CTGAGTGACA TTTCC	AATGAAAACT GCCGAATAAA CAGATAAGGC TACTTCAGAG CCACCATCAC AATTGTAGAG GGGATCCTGG AAGTC	AGCATCATGC AGATAGCAGA TGTCCCCATG CCCACACCGC AGCCTGCCAA CTCCCTGATG GACTTCACTG TGACC	TGCAAAGGGG CCACCCCCAT GGAAGCCTGT ACGATCATCT CCGACCCCAC CTGCCAGATC GCCCAGAACC GGGTC	TGCAGCCCTG TGGCTGTGGA TGGGCTGTGC CTGCTGTCTG TGAGAAGAGC CTTCAATGGG TCTGGCACCT ACTGT
TTAGGACCTG CTGGTGACAA CCCCCTGGAG CTGAGTAGGA TTCCT	GATGAAAACT GCCAGATTAA CAGATAAGGC TACTTTCAAG CCACCATCAC AATTGTAGAG GGAATCTTAG AGGTT	AACATCATCC AGATGACAGA CGTCCTGATG CCGGTGCCAT GGCCTGAAAG CTCCCTAATA GACTTTGTCG TGACC	TGCCAAGGGA GCATTCCCAC GGAGGTCTGT ACCATCATTT CTGACCCCAC CTGCGAGATC ACCCAGAACA CAGTC	TGCAGCCCTG TGGATGTGGA TGAGATGTGT CTGCTGACTG TGAGACGAAC CTTCAATGGG TCTGGGACGT ACTGT
	TACTTCAGA(CCCACACTG	r ACGATCATC	CTCCTGTCC
	TACTTCAGA(CCCACACCG	F ACGATCATC	CTGCTGTCT
	TACTTTCAA(CCGGTGCCA	F ACCATCATT	CTGCTGACT
TAGCCCCTCT	CAGATAAGGT	TGTCCCAATO	GGAAGCCTGT	TGAGCTGTG(
TAGCCCCTCT	CAGATAAGGC	TGTCCCCATO	GGAAGCCTGT	TGGGCTGTG(
CCTTCT	CAGATAAGGC	CGTCCTGATO	GGAGGTCTGT	TGAGATGTG
cccacat tatcaacace tagreerer TGCCCACAT TATCAACACE TAGCCCCTCT	GCCGAATAAA GCCGAATAAA GCCAGATTAA	AACATCATCC AGGTAGCAGA TGTCCCAATC AGCATCATGC AGATAGCAGA TGTCCCCATG AACATCATCC AGATGACAGA CGTCCTGATG	TGCAAAGGGG CCACTCCCAC GGAAGCCTGT TGCAAAGGGG CCACCCCCAT GGAAGCCTGT TGCCAAGGGA GCATTCCCAC GGAGGTCTGT	TGCAGCCCGG TGGCTGTGGA TGAGCTGTGC TGCAGCCCTG TGGCTGTGC TGCAGCCCTG TGGATGTGT
CCCACAT TATCAACACC TAGTCCCTCT TTGCCCACAT TATCAACACC TAGCCCCTCT	AATGAAAACT AATGAAAACT GATGAAAACT		TGCAAAGGGG TGCAAAGGGG	
rat	rat	rat	rat	rat
mouse	mouse	mouse	mouse	mouse
human	human	human	human	human

-1G. 2A-4

rat mouse human	GTGAATTTCA GTGAATTTCA GTGAACCTCA	GTGAATTICA CTCTGGGAGA CGATGCAAGC CTGGCCCTCA CCAGCGCCCT GATCTCTAIC CCTGGCAAAG ACCTA GTGAATTICA CTCTGGGAGA TGATGCAAGC CTGGCCCTCA CCAGCACCCT GATCTCTAIC CCTGGCAAAG ACCCA GTGAACCTCA CCCTGGGGGA TGACACAAGC CTGGCTCTCA CGAGCACCCT GATTTCTGTT CCTGACAGAG ACCCA	CGATGCAAGC TGATGCAAGC TGACACAAGC	CTGGCCCTCA CTGGCCCTCA CTGGCTCTCA	CCAGCGCCCT CCAGCACCCT CGAGCACCCT	GATCTCTATC GATCTCTATC GATTTCTGTT	CCTGGCAAAG CCTGGCAAAG CCTGACAGAG	ACCTA ACCCA ACCCA	1476 1482 1434
rat mouse	GGCTCCCCTC	GGCTCCCCTC TGAGAACAGT GAATGGTGTC CTGATCTCCA TTGGCTGCCT GGCCATGTTT GACTCCCCTC TGAGAGCAGT GAATGGTGTC CTGATCTCCA TCGGCTGCCT GGCTGTGCTT	GAATGGTGTC GAATGGTGTC	CTGATCTCCA	TIGGCTGCCT	GGCCATGTTT GGCTGTGCTT	GTCACCATGG GTCACCATGG	TTACC	1551 1557
human	GCCTCGCCTT	GCCTCGCCTT TAAGGATGGC AAACAGTGCC CTGATCTCCG TTGGCTGCTT GGCCATATTT GTCACTGTGA TCTCC ATCTTGCCTT ACAAAAAACA CAAGACGTAC AAGCCAATAG GAAACTGCAC CAGGAACGTG GTCAAGGGCA AAGGC	AAACAGTGCC CAAGACGTAC	CTGATCTCCG	TTGGCTGCTT	GGCCATATTT	GTCACTGTGA TCTCC GTCAAGGGCA AAGGC	TCTCC	1509 1626
mouse	ATCTTGCTGT CTCTTGGTGT	ATCTTGCTGT ACAAAAACA CAAGGCGTAC AAGCCAATAG GAAACTGCCC CAGGAACACG CTCTTGGTGT ACAAAAACA CAAGGAATAC AACCCAATAG AAAATAGTCC TGGGAATGTG	ACAAAAACA CAAGGCGTAC AAGCCAATAG GAAACTGCCC CAGGAACACG GTCAAGGGCA AGGGC ACAAAAAACA CAAGGAATAC AACCCAATAG AAAATAGTCC TGGGAATGTG GTCAGAAGCA AAGGC	AAGCCAATAG AACCCAATAG	GAAACTGCCC AAAATAGTCC	CAGGAACACG TGGGAATGTG	GTCAAGGGCA AGGGC GTCAGAAGCA AAGGC	AGGGC AAGGC	1632 1584
rat mouse human	CTGAGTGTTT CTGAGTGTTC CTGAGTGTCT	CTGAGTGTTT TICTCAGCCA TGCAAAAGCC CCGTTCTCCC GAGGAGCCG GGAGAAGGAT CCACTGCTCC AGGAC CTGAGTGTTC TCCTCAGTCA CGCGAAAGCC CCGTTCTTCC GAGGAGCCA GGAGAAGGAT CCATTGCTCC AGGAC CTGAGTGTCT TICTCAACCG TGCAAAAGCC GTGTTCTTCC CGGGAAACCA GGAAAAGGAT CCGCTACTCAA	TICTCAGCCA TGCAAAAGCC CCGTTCTCCC GAGGAGACCG GGAGAAGGAT CCACTGCTCC TCCTCAGTCA CGCGAAAGCC CCGTTCTTCC GAGGAGCCA GGAGAAGGAT CCATTGCTCC TTCTCAACCG TGCAAAAGCC GTGTTCTTCC CGGGAAACCA GGAAAAGGAT CCGCTACTC-	CCGTTCTCCC CCGTTCTTCC GTGTTCTTCC	GAGGAGACCG GAGGAGACCA CGGGAAACCA	GGAGAAGGAT GGAGAAGGAT GGAAAAGGAT	CCACTGCTCC CCATTGCTCC CCGCTACTC-	AGGAC AGGAC AA	1701 1707 1655
rat mouse human	AAGCCATGGA AAGCCAAGGA AAACCAAGAA	AAGCCATGGA TGCTCTAA AAGCCAAGGA CACTCTAA AAACCAAGAATTTAAAG GAGTTTCTTA A		- 1719 - 1725 A 1683	9				
				FIG	FIG. 2A-5				9/18

		Πш	10)/18		
FIG. 2B-1	FIG. 2B-2	FIG. 2B				
50 50	50	100 100 100 1	150 150 150	200 200 200	250 250 250	300 300 300
NNQLRGWSSD HNQLRGWSSD	HNQLNGWSSD	GSNITFVVNL GSNITFVVNL GSNITFAVNL	DEDWEDNTSQ DGDWEDGTSR DSDGENGTGQ	SARVSINTVN SARVSINTVN SVRVSVNTAN	TMYQKNDRNS TMSQKNDRNL TMFQKNDRNS	LFVSNNHTLN LFVSNNHTLN LFVSTNHTVN
HEQYPDHMRE HEQYPDHMRE	NERPSAYMRE	ALTSDSPALV VLTSDSPALV VLTSDSPALV	YVYNWTTGAD HVYNWTAGAD YVYNWTAWSE	GQYFQKLGQC GQYFQKLGRC GQYFQKLGRC	VITDQIPIEV VITDQIPVEV VVTDQIPVEV	YKWNFGDNTG YKWNFGDNTG YKWSFGDNTG
AAKRFRDVLG AAKRFRDVLG	AAKRFHDVLG	DSWEGGRVQA DSWEGGRVQA NSWKGGRVQA	RSDLELASDP RNDLGLTSDL RNEAGLSADP	WNEVYVEHTL WSEVYVEHTL WNEIYVEHTL	IPISKVKDVY IPISKVKDVY VPIAQVKDVY	SHFLNYSAIS SHFLNDSAIS SHFLNYSTIN
LLLAAGLPLQ LLLAAGLPLQ	LLLAARLPLD	VWRRGEGRWK VWRRGDGRWK VWKRGDMRWK	NGNIVYERNC NGNIVYEKNC NGNIVYEKNC	PFPRPHGRKK PFPRPHGWKK PFPHHPGWRR	IVFRRHGRAY TVFRRYGRAY TVYRRHGRAY	IFFDVLIHDP IVFDVLIHDP IMFDVLIHDP
MESLCGVLVF MESLCGVLGF	MECLYYFLGF	ENEWDEQLYP ENEWDEHLYP ENDWNEKLYP	VFPRCQKEDA VFPRCQKEDA IFPRCQKEDA	GQHLRFPDGK SQHLRFPDRR SHHNVFPDGK	LTVGPQVMEV LTAGPQVMEV VTLGPQLMEV	SDETFLRDLP IFFDVLI SDEIFLRDLP IVFDVLI SDETFLKDLP IMFDVLI
rat mouse	human	rat mouse human	rat mouse human	rat mouse human	rat mouse human	rat mouse human

FIG. 2B-1

rat	HTYVLNGTFN	ENLTVQTAVP	GPCPSPTPS-	-PSSSTSPSP	ASSPSPTLST	348
mouse	HTYVLNGTFN	LNLTVQTAVP	GPCPPPSPST	PPSPSTPPLP	SPSPLPTLST	350
human	HTYVLNGTFS	LNLTVKAAAP	GPCPPPPP	PPRP	SK	334
rat	PSPSLMPTGY	KSMELSDISN	ENCRINRYGY	FRATITIVDG	ILEVNIIQVA	398
mouse	PSPSLMPTGY	KSMELSDISN	ENCRINRYGY	FRATITIVEG	ILEVSIMQIA	400
human	PTPSLGPAGD	NPLELSRIPD	ENCQINRYGH	FQATITIVEG	ILEVNIIQMT	384
rat	DVPIPTLQPD	NSLMDFIVTC	KGATPTEACT	IISDPTCQIA	QNRVCSPVAV	448
mouse	DVPMPTPQPA	NSLMDFTVTC	KGATPMEACT	IISDPTCQIA	QNRVCSPVAV	450
human	DVLMPVPWPE	SSLIDFVVTC	QGSIPTEVCT	IISDPTCEIT	QNTVCSPVDV	434
rat	DELCLLSVRR	AFNGSGTYCV	NFTLGDDASL	ALTSALISIP	GKDLGSPLRT	498
mouse	DGLCLLSVRR	AFNGSGTYCV	NFTLGDDASL	ALTSTLISIP	GKDPDSPLRA	500
human	DEMCLLTVRR	TFNGSGTYCV	NLTLGDDTSL	ALTSTLISVP	DRDPASPLRM	484
rat	VNGVLISIGC	LAMFVTMVTI	LLYKKHKTYK	PIGNCTRNVV	KGKGLSVFLS	548
mouse	VNGVLISIGC	LAVLVTMVTI	LLYKKHKAYK	PIGNCPRNTV	KGKGLSVLLS	550
human	ANSALISVGC	LAIFVTVISL	LVYKKHKEYN	PIENSPGNVV	RSKGLSVFLN	534
rat mouse human	HAKAPFSRGD HAKAPFFRGD RAKAVFFPGN	REKDPLLQDK QEKDPLLQDK QEKDPLLKNQ	PWML 572 PRTL 574 EFKGVS 560	FIG 28-2	0	

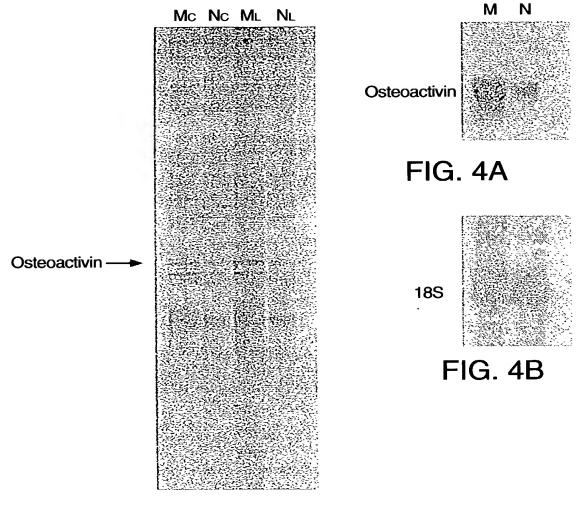


FIG. 3

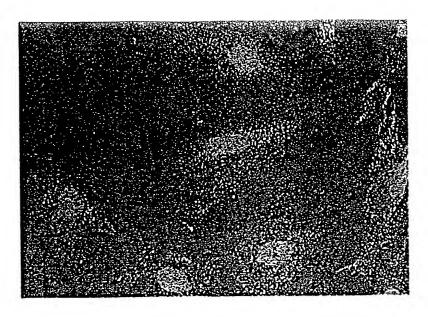


FIG. 5

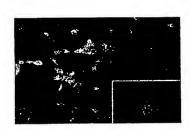
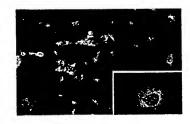


FIG. 5A



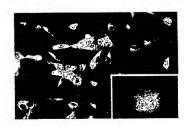


FIG. 5B FIG. 5C

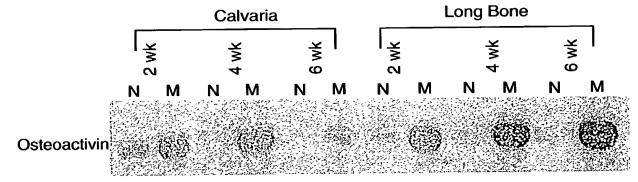
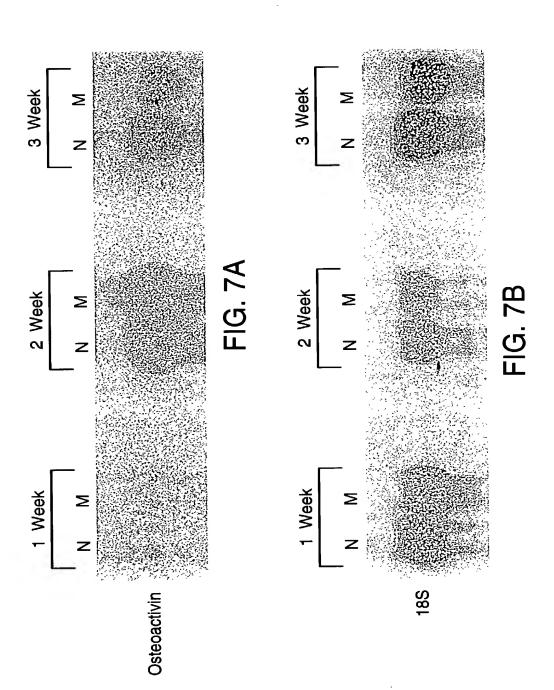


FIG. 6

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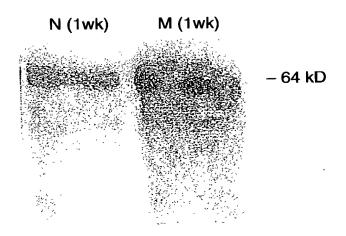
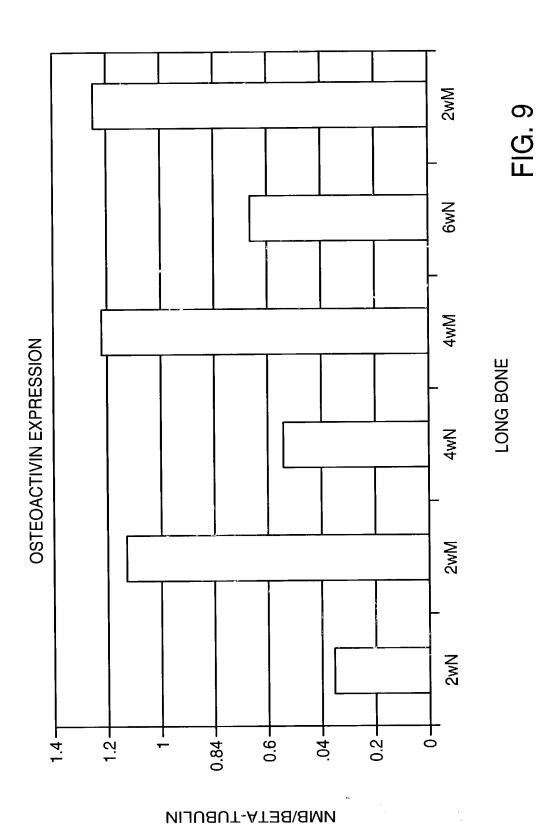


FIG. 8



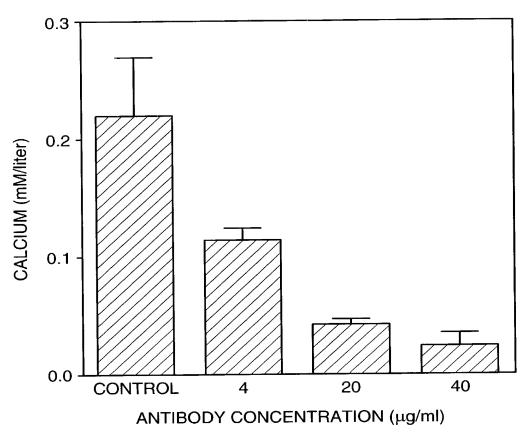


FIG. 10